Procedure Maintenance Procedure Maintenance

Procedure Maintenance

The Procedure Maintenance part of the Natural Tools for DB2 enables you to insert, modify and delete stored procedures from the SYSIBM.SYSPROCEDURES table, as well as insert data areas.

At this point Marianne stops awhile and wonders: how marvelous this Natural and its Debugger are working. After a moment of reverence she continues her work and selects one of the following functions

This section covers the following topics:

- Invoking Procedure Maintenance
- Insert a Stored Procedure
- Modify a Stored Procedure
- Insert Data Areas
- Save PARMLIST as Natural Object
- List Stored Procedures
- Delete a Stored Procedure

See also Stored Procedures in Natural in the section Statements and System Variables.

Invoking Procedure Maintenance

To invoke the Procedure Maintenance function

• Enter function code "P" on the Natural Tools for DB2 Main Menu.

The Procedure Maintenance menu is displayed:

```
11:34:09
                     ***** NATURAL TOOLS FOR DB2 *****
                                                                   1999-01-20
                            Procedure Maintenance
                       Code Function
                          Insert New Procedure
                          Delete Procedure
                          Modify Procedure
                          List Procedures
                          Help
                          Exit
              Code .. _
                          Procedure Name .. ___
                          Authid ..... _____
                          Luname ..... _____
Command ===>
Enter-PF1---PF3---PF3---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
```

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The following functions are available:

| Code | Description |
|------|---|
| Ι | Inserts a new DB2 stored procedure into the SYSIBM.SYSPROCEDURES table. |
| D | Deletes one or several DB2 stored procedure(s). |
| M | Modifies a DB2 stored procedure. |
| L | Lists all DB2 stored procedures or a part of them. |

The following parameters can be specified:

| Parameter | Description | | | | | |
|----------------|--------------------------------------|--|--|--|--|--|
| Procedure Name | Specifies the name of the procedure. | | | | | |
| Authid | Specifies the authorization ID. | | | | | |
| Luname | Specifies the LU name. | | | | | |

Procedure Maintenance Insert a Stored Procedure

Insert a Stored Procedure

To insert a new stored procedure into the catalog

• Enter function code "I" on the Procedure Maintenance menu.

The following screen is displayed:

Here, you can specify the fields of the new stored procedure. The fields PROCEDURE, LOADMOD, IBMREQD and LANGUAGE are mandatory.

To define a parameter list

• Enter "y" in the field "Define PARMLIST".

You can then enter the parameter fields in a separate screen.

The first column in the parameter screen is used for editing purposes, possible commands are "I" and "D" for insertion and deletion. In the second column, the name of the parameter can be entered. The third column is mandatory and specifies the type of the parameter. Entering "?" displays a list of possible types from which one type may be selected. In the next column, a length can be entered. The Natural for DB2 checks whether the specified type and length value fit together. The next columns define the subtype and the in/out value.

When all parameters are specified, press ENTER to return to the Insert Procedure screen.

To actually insert the stored procedure and add it to the catalog, press PF4. If pressing PF4 results in an error from DB2, press PF2 to display the error information.

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Modify a Stored Procedure Procedure Procedure

Modify a Stored Procedure

To modify a stored procedure in the catalog

• Enter function code "M" in the Procedure Maintenance menu together with a procedure name as unique identifier.

The following screen is displayed:

To display a list of stored procedures

• Proceed as above but do not enter a procedure name nor use the asterisks"*" notation.

The list of stored procedures will be displayed.

From this list select a specific stored procedure with the line command "MO".

The stored procedure is then displayed for modification. Proceed as described in section Insert a Stored Procedure above.

Procedure Maintenance Insert Data Areas

Insert Data Areas

Fields of data areas can be inserted automatically to SYSPROCEDURES.

Proceed as described in the section Insert a Stored Procedure or Modify a Stored Procedure.

```
1999-08-04
                    ***** NATURAL TOOLS FOR DB2 *****
14:57:16
 ! PARMLIST =
                             __ ( _____ ) FOR ____ DATA __
                      _____ ( _____ ) FOR ____ DATA ____
                                             _____ DATA
                          _____ ( _____ ) FOR
                         ( _____ ) FOR _____ DATA ___
( ____ ) FOR ____ DATA ___
( ____ ) FOR ____ DATA ___
                          _____ ( _____ ) FOR ____ DATA
                          _____ ( _____ ) FOR ____ DATA
                         _____ ( _____ ) FOR ____ DATA
                         _____ ( _____ ) FOR ____ DATA ____ !
                               length
 ! cmd parm-name parm-type
                                           subtype
                                            blank/ blank/!
SBCS/ IN/!
   I/ optional mandatory
 !
                                                        IN/!
 !
                                            SBCS/
    I=insert
                                            MIXED/
                                                         OUT/
Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
               Exit Parml Data - + Canc
```

In the PARMLIST screen (above,) press PF5/Data to display the following window.

```
***** NATURAL TOOLS FOR DB2 *****
14:57:16
                                                        1999-08-04
 ! PARMLIST =
                           __ ( _____ ) FOR _____ DATA ____ !
                         ____ ( _____ ) FOR ____ DATA ____
                    _____!
                  ! Library : _____
! Member : _____
                 _____ ! Enter Library and LDA/PDA name ! ____
                 _____ ! and press enter to insert ! ___
   -----! press PF3 to cancel
 ! cmd parm-name parm-type +----- out !
                                        blank/
                                                 blank/!
 ! I/ optional mandatory
                                        SBCS/
                                                   IN/ !
 ! D
   I=insert
                                                   OUT/
                                        MIXED/
Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
             Exit Parml Data - +
```

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Insert Data Areas Procedure Maintenance

Enter the library name and the name of the LDA or PDA to be inserted into the PARMLIST definition of the stored procedure. A maximum of 100 parameters can be inserted.

The parameter STCB will be generated automatically at the top of the PARMLIST.

The individual field names of the LDA or PDA are truncated to the first 8 characters in the PARMLIST parmnames (DB2 restriction).

| Page | | 2 | | | | | | | 1999 | 0-08-04 | 14:56 |
|------|------|-----------|-----------|---|-------|-----|-----|---------|------|---------|-------|
| ! | PARI | MLIST = | | | | | | | | | ! |
| - ! | | | | | | | | | | | ! |
| ! | _ | STCB | VARCHAR | (| 794_ | _) | FOR | | DATA | | ! |
| ! | _ | NAME | CHAR | (| 18 | _) | FOR | | DATA | | ! |
| ! | _ | CREATOR_ | CHAR | (| 8 | _) | FOR | | DATA | | ! |
| ! | _ | TYPE | CHAR | (| 1 | _) | FOR | | DATA | | ! |
| ! | _ | DBNAME | CHAR | (| 8 | _) | FOR | | DATA | | ! |
| ! | _ | TSNAME | CHAR | (| 8 | _) | FOR | | DATA | | ! |
| ! | _ | DBID | SMALLINT | (| | _) | FOR | | DATA | | ! |
| ! | _ | OBID | SMALLINT | (| | _) | FOR | | DATA | | ! |
| ! | _ | COLCOUNT | SMALLINT | (| | _) | FOR | | DATA | | ! |
| ! | _ | EDPROC | CHAR | (| 8 | _) | FOR | | DATA | | ! |
| ! | | | | | | | | | | | ! |
| ! | cmd | parm-name | parm-type | | lengt | ı | | subtype | | inout | ! |
| ! | | | | | | | | | | | ! |
| ! | I/ | optional | mandatory | | | | | blank/ | | blank/ | ! |
| ! | D | | | | | | | SBCS/ | | IN/ | ! |
| ! | I=: | insert | | | | | | MIXED/ | | OUT/ | ! |

Save PARMLIST as Natural Object

You can store the field definitions of the PARMLIST in a Natural program which you can stow and modify. (It is not necessary to enter the field definitions manually.)

To do so, press PF4/Parml.

The field definitions are converted to a Natural object. The Natural object is saved on FUSER in the user library you specified.

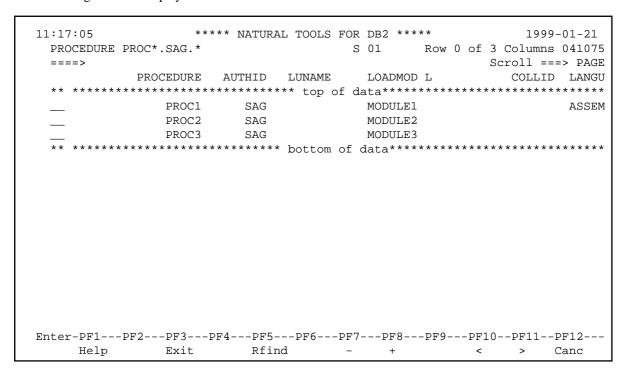
The Natural object can be used as input for the LDA editor after the stow.

List Stored Procedures

To display a list of stored procedures

• Enter function code "L" in the Procedure Maintenance menu.

The following screen is displayed:



The screen contains a list of all stored procedures in the catalog.

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Delete a Stored Procedure Procedure Procedure Maintenance

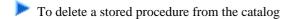
To display a part of the procedures

• use the asterisks "*" notation.

The following line commands are available:

| Command | Description |
|---------|--|
| LI | Display the stored procedure in detail |
| МО | Modify the stored procedure |
| DE | Delete the stored procedure |

Delete a Stored Procedure



• Enter function code "D" in the Procedure Maintenance menu together with a procedure name as unique identifier.

The procedure is then deleted.

If you do not enter a procedure name or if you use the "*" notation, a screen with a list of procedures appears, where you can enter the line command "DE" to delete a procedure.